RESOURCE MANAGEMENT PLAN 2000/2001

KALUM FOREST DISTRICT

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INTRODUCTION

The following document is a Resource Management Plan for the Kalum Forest District. It examines 'investment needs' of the forested land base in consideration of the longer-term implications. This examination is directed at the Land Based Programs which include:

1. Sustainable Harvest (Silviculture, Engineering, Recreation & Forest Health)
2. Enhancing Environmental Values (Watershed Restoration)
3. Enhancing Forest Management Knowledge (Inventory)

For each of the above programs, this plan provides the strategic objective for managing the resources under each program, along with the strategies and opportunities necessary to meet that objective. Investment priorities and opportunities have been identified along with the 'critical' and optimal levels of delivery for each activity.

The majority of the funding for these investments is provided through the Skeena Region of Forest Renewal BC, under their land-based programs. Although the Ministry of Forests (MOF) and the Ministry of Environment, Lands and Parks (MELP) have the mandate for administering the land base, stakeholders other than these government ministries may deliver much of the resource investments.

The ministries provide Forest Renewal BC and the other stakeholders guidance as to which activities are sound resource investments for achieving the resource management objectives. Often that includes considerations into the timing, quantity and location of the work in addition to the type of work that needs to be delivered. For a variety of reasons, some of this work is 'critical' while other works may be considered a lower priority and not recommended at this time. With this document for guidance, Forest Renewal BC will be able to make better investment decisions. It will allow merging of the biological and land based needs of the natural resources with the socio-economic objectives of Forest Renewal BC.

LINKS TO OTHER PLANS

The Kalum Forest District includes the Kalum and Nass Timber Supply Areas (TSA) and Tree Farm licences 1 and 41. Data from the Kalum Timber Supply Review (TSR II) and the current Management Plans for TFL's 1 (M.P. 9) and 41 (draft M.P. 6) were used. Those plans have been reviewed for commitments, recommendations and opportunities that will address issues and investment needs that are applicable to this resource management plan.

SUSTAINABLE HARVEST COMPONENT
(Silviculture, Engineering, Recreation & Forest Health)

SILVICULTURE

Basic Data

The Kalum Forest District encompasses 3 timber supply areas: Kalum TSA, Tree Farm Licence #1 and Tree Farm Licence # 41. All 3 units are currently the focus of a "Land and Resource Management Plan". The Kalum LRMP is expected to be ratified by the participants by February 28, 2000 at which time the recommendations will go to Cabinet for their final approval.

TSA	**Total Area** (ha)	**Timber Harvesting Land Base** (ha)	**AAC** (m^3)
Kalum	540,000	98,256	464,000
TFL 1	610,691	130,645	720,000
TFL 41	703,745	69,686	400,000
Total	**1,854,136**	**298,587**	**1,584,000**

Current Harvest Forecast

Over the past 3 years the licensees, including Small Business harvested an area of about
4,000 ha. annually from 2 TFL's, 7 forest licences and many timber sales. This harvest level is expected to continue.

Site Class Profile

Classes	<15	15-25	25-35
Kalum			
TFL 1			
TFL 41	35%	60%	5%

Age Class Profile

Age Classes	0-20 years(1)	21-100 (2-5)	100-250 (6-8)	250+ (9)
Kalum (TSR figure 5, page 12)	27%	29%	12%	32%
TFL 1 (MP table 2, page 23)	10%	17%	13%	60%
TFL 41 (MP table 7, page 35)	19%	7%	14%	60%

* "Other" category included in 0-20 years.

Tree Species Profile

	Hemlock	Abies	Spruce	Pine	Cedar	Deciduous
Kalum	76%	8%	6%	5%	1%	4%
TFL 1	78%	11%	2%	4%	1%	2%
TFL 41	81%	9%	2%	0	7%	2%

Issues Affecting Timber Supply in the Kalum Forest District

- World prices for forest products.
- Economics of harvesting stands with 40% pulp content.
- Nisga'a Lands, SBFEP operations will cease on a Nisga'a treaty effective date. Other licensee operation are covered by a five year transition strategy.
- Conventional harvesting is more constrained in visually sensitive areas.
- Commercial thinning opportunities have yet to be fully explored.
- Site productivity of second growth (managed) stands. More reliable data will help justify treatments.
- Commercial harvest of pine mushrooms may affect the "timber harvesting land base".
- Kalum Land and Resource Management Plan: the uncertainty about how this plan will affect timber supply.
- Area reductions and that affect on AAC.

Incremental Silviculture History

Over a period of about 13 years, from 1985 (FRDA I) until 1998 a combination of 3 factors (ample availability of second growth stands + plenty of labour + adequate funding) enabled the 3 agencies in the Kalum Forest District (BCFS, Skeena Cellulose and West Fraser) to carry out very ambitious incremental silviculture programs. Since 1998 funding has become increasing constrained and is being directed to the licensees, thereby reducing our ability to manage many second growth stands. Only the highest priority stands are now being brushed, the remainder have to be left to develop naturally.

Silviculture Treatment Priority Matrix

This treatment priority rating guide was jointly developed (by Forest Service, West Fraser & Skeena Cellulose) to provide direction in determining which areas are treated irrespective of tenure.

Priority	Activity
1	Backlog brushing, (herbaceous brush where crop tree survival is in immediate jeopardy)
2	Planting of NSR blocks
3	Planting of NSR areas (where the program can be spread out over several years)
3	Surveys
3	Spacing
4	Conifer Release
4	Free growing surveys
4	Pruning

Silviculture Objectives

A. Maintain productive area by reforesting sites classified as NSR. Reforest all good and medium sites by 2002.
B. Maintain investments in plantations by aggressively brushing areas as required until the areas reach free growing.
C. Capture growth enhancement potential by managing density and competition.
D. Consider rehabilitation treatments only after careful cost/benefit analysis.
E. Nisga'a Treaty: ensure obligations on core lands are met.
F. Complete an analysis of the impact varying amounts of spacing have on the timber supply, to verify objective A.

Silviculture Strategies

- Plant all good and medium sites by 2002.
- Brush as necessary, to ensure that all areas reach free-growing by the prescribed time.
- Maintain an accurate database to support planning.
- Concentrate incremental activities in the Kalum TSA.
- Evaluate all planned treatments using Win Typsy Economist and NPV calculations.
- Potential spacing blocks will be ranked according to the "Incremental Spacing Value Rating Table".
- Space all good and medium site stands with densities ranging from 2000 to 5000 sph.
- Post spacing densities will range from:
- 800-1000 sph for stands to be thinned.
- ~600 sph where thinning not prescribed.
- Prune only spaced stands with site index 26+.
- Commercial thinning will be limited to one entry/rotation
- Pruned stands will not be thinned.
- Maintain an accurate data base to support planning.

Juvenile Spacing Value Rating Table

FACTORS	4	3	2	1	No Treatment
Species	Hw, Cw, Ba	Hw - Pl	Pl		Ss
Age	14 - 15 yrs	16 - 20 yrs	21 - 25 yrs	26 - 30 yrs	>30 yrs
Density (st/ha)	4000 - 10000	4000 - 3000	3000 - 2500	2500 - 2000	>2000
Site Index @ age 50	>30	30 - 25	25 - 20	20 - 15	<15
Access		2WD	4WD	Boat	Helicopter
Biodiversity Potential	HIGH	MEDIUM	LOW	NONE	NONE

Rating : *Low priority* = *0-14*
Medium priority = *15-20*
High priority = *21+*

SKEENA CELLULOSE TENURES

Silviculture Objectives:

A. Maintain the productive land base by reforesting areas currently classified NSR, and those lands that are found to be NSR during surveys.
B. Investment will focus on cost-effective fill planting, primarily. Rehabilitation projects will not be undertaken *unless* they are low-risk and determined to yield a return similar to that of other potential enhanced forestry projects.
C. Maintain investments in plantations by aggressively brushing areas as required until the areas are free-growing.
D. To increase stand operability through spacing (opportunity for commercial thinning and decreased final harvest age), helping mitigate any reductions in local allowable harvest levels.
E. To increase stand value through spacing making harvesting more profitable in the Region.
F. On select sites, to produce high-value clear wood through pruning.
G. To maintain 6000 person days of employment annually (>30% First Nation's), focusing on longer-term jobs, where possible.
H. Complete an analysis o the impact of varying amounts of spacing on the timber supply.

Silviculture Strategies:

- Plant all good and medium sites by 2000. Investment in planting backlog sites found to be NSR after 2000 will be based on potential risk and expected return. Some (up to 150 ha/year) fill planting will be required up to about 2004.
- Brush all backlog sites where necessary to ensure free-growing condition is achieved as early as possible.
- Develop necessary files (including backlog SPs) for record keeping and data base to support planning.
- Space all good and medium sites with densities exceeding 3500 sph.:
- Target sph, commercial thinning potential (<25 years) - 1200sph.
- Target sph, commercial thinning potential (>25 years) - 1000 sph.
- Target sph, no commercial thinning potential (<25 years) - 1000 sph.
- Target sph, no CT potential or pruning planned - 800 sph.
- Prune accessible good sites (SI (50) = 28) where funding permits. Focus on completing second lift pruning throughout TFL 1. Investigate potential for more cost-effective pruning including single-entry pruning.
- Continue to maintain an accurate database.
- Note: the incremental strategies apply to TFL 1 only.

SKEENA SAWMILLS TENURES

Silviculture Objectives:

A. Maintain productive area by rehabilitation and reforestation of sites currently classified as NSR.
B. Maintain investments in plantations by aggressively brushing areas as required until the areas are free-growing.
C. Provide an economic sustainable saw log supply to the processing plants.
D. Increase piece size through modification of density via spacing.
E. Complete an analysis o the impact of varying amounts of spacing on the timber supply.

Silviculture Strategies:

- Plant all good and medium sites by 2000.
- Brush all backlog sites where necessary to ensure free-growing condition by the prescribed time and protect investment as a result of planting.
- Continue to maintain an accurate database.
- Space all good and medium site stands with densities >2500 sph on slopes <60%.
- Post spacing densities will range from:
    - 800-1000 sph for stands to be thinned.
    - Prune only spaced stands with site index 26+.
- Commercial thinning will be limited to one entry/rotation
- Maintain an accurate database to support planning.
- Note: the incremental strategies apply to TFL 41 only.
- Single entry spacing will be prescribed for stands:
    - Site index <20
    - No commercial thinning is planned.

SILVICULTURE ACTIVITY TABLES

Four sets of activity tables are included, one for each: BCFS, Skeena Cellulose, West Fraser) and one set which is cumulative totals for all 3 (Kalum District Summaries).

Table A: Backlog Activities Kalum District Summary

	Plan Goals (hectares)					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority[1]
Legal Obligations								
Planning/surveys/ prescriptions	4840	4700	3300	3100	3100	194	40	4
Site preparation	0	0	0	0	0	0		
Planting	255	205	90	90	90	230	900	2
Brushing	1000	880	670	510	395	900	900	
Seed Purchase[2]	0	0	0	0	0	0		
Backlog Reforestation[3]								
Planning/surveys/ prescriptions	3500	2000	1675	1550	1540	122	35	4
Site preparation	0	0	0	0	0	0		
Site Restoration Road/land. Rehab (WRP)	0	0	0	0	0	0	0	
Planting	350	0	0	0	0	160	450	2
Brushing	235	150	160	130	130	176	750	1
Seed Purchase[2]	0	0	0	0	0	0		
Impeded areas								
Planning/surveys/ Prescriptions	250	250	250	250	250	10	35	3
Site preparation	25	25	25	0	0	20	750	4
Planting	0	25	25	25	0	0	500	2
Brushing	175	150	150	120	50	131	750	11
Seed Purchase[2]	25	25	25	0	0	2	50	2
Kalum District Total								
Planning/surveys/ Prescriptions	8590	6950	5525	4900	4890	344	40	3
Site preparation	25	25	25	0	0	20	750	3
Site Restoration Road/land. Rehab (WRP)	0	0	0	0	0	0	0	
Planting	605	230	115	115	90	454	750	2
Brushing	1410	1180	980	760	575	1128	800	1
Seed Purchase[1]	25	25	25	0	0	2	50	2
Studies[4]	9	9	9	9	9	115	5000	3
Total						2,063		

Table B: Stand Tending Activities Kalum District Summary

	Plan Goals (hectares)					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority[1]
Planning/Surveys/prescriptions	2400	2400	2400	2400	2400	14	35	4
Spacing	2550	2550	2250	2600	2650	2187	1400	4
Pruning	400	400	400	400	400	120	1600	5
Fertilizing	0	0	0	0	0	0		
Studies[2]	0	0	0	0	0	10		
Total						2,321		

Table C: Forest Health Enhancement Activities Kalum District Summary

	Plan Goals (hectares)					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority [1]
Site rehab	0	0	0	0	0	0		
Spacing	0	0	0	0	0	0		
Pruning	0	0	0	0	0	0		
Studies[2]	0	0	0	0	0	0		
Others[3]	0	0	0	0	0	0		

Notes:

1. Priority rating: Rate High=1&2, Medium=3, Low=4&5

Table D: Forest Health Maintenance Activities District summary

	Plan Goals					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority [1]
Ground Surveys (ha)	5000	2500	2500	2500	2500	290	58	1
Aerial Surveys (hours of flying time)	10	2	2	2	2	14	1400	1
Fall and burn treatment (trees)	440	440	440	440	440	44	100	1
MSMA treatment (trees)	0	0	0	0	0	0		
Pheromone baiting (trees)	100	100	100	100	100	2	20	1
Defoliator spraying (ha)	0	0	0	0	0	0		
Studies[2]	0	0	0	0	0	0		
Other[3]						3		1

Notes: other is training, GPS units and supplies.

Table E: Current Fire and Pest Activities Table Kalum District Summary

	Plan Goals (hectares)					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority [1]
Planning/surveys /prescriptions	1000	1000	1000	1000	1000	35	35	4
Site preparation	5	5	5	5	5	50	1000	4
Planting	0	0	0	0	0	0		
Brushing	0	0	0	0	0	0		
Max density spacing			250	500	500	0	800	4
Studies[2]	0	0	0	0	0	0		

Notes: this is for spacing of old burns in the Nass TSA. Site preparation is for road access.

Table F: Habitat Supply Activities Kalum District Summary

(Footnote Domestic Range)

	Plan Goals (hectares)					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority[1]
Planning/surveys/ prescriptions	0	0	0	0	0	0		
Site preparation	0	0	0	0	0	0		
Planting	0	0	0	0	0	0		
Brushing	0	0	0	0	0	0		
Spacing	0	0	0	0	0	0		
Pruning	0	0	0	0	0	0		
Studies[2]	0	0	0	0	0	0		
Others[3]	0	0	0	0	0	0		

Table A: Backlog Activities (Forest Service)

	Plan Goals (hectares)					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority[1]
Legal Obligations								
Planning/surveys/ prescriptions	0	0	0	0	0			
Site preparation	0	0	0	0	0	0		
Planting	0	0	0	0	0	0		
Brushing	0		0	0	0	0		
Seed Purchase[2]	0	0	0	0	0	0		
Backlog Reforestation[3]								
Planning/surveys/ prescriptions	3500	2000	1675	1550	1540	122	35	3
Site preparation	0	0	0	0	0	0		
Site Restoration Road/land. Rehab (WRP)	0	0	0	0	0	0	0	
Planting	350	0	0	0	0	160	450	2
Brushing	235	147	164	130	130	176	750	1
Seed Purchase[2]	0	0	0	0	0	0		
Impeded areas								
Planning/surveys/ prescriptions	250	250	250	250	250	8	30	4
Site preparation	25	25	25	0	0	19	750	4
Planting	0	25	25	25	0	0	500	4
Brushing	100	100	100	100	100	75	750	4
Seed Purchase[2]	25	25	25	0	0	2	50	4
Management Unit Total								
Planning/surveys/ prescriptions	3750	3750	1900	1800	1800	130	35	4
Site preparation	25	25	25	0	0	19	750	4
Site Restoration Road/land. Rehab (WRP)	0	0	0	0	0	0	0	
Planting	350	25	25	25	0	160	450	2
Brushing	335	500	264	230	230	251	750	1
Seed Purchase[1]	25	25	25	0	0	2	50	2
Studies[4]	5	5	5	5	5	25	5000	4
Total						587		

Table B: Stand Tending Activities (Forest Service)

	Plan Goals (hectares)					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority[1]
Planning/Surveys /prescriptions	2000	2000	2000	2000	2000	70 [1]	35	4
Spacing	1200	1200	1200	1200	1200	1320 [1]	1100	4
Pruning	200	200	200	200	200	280 [1]	1400	5
Fertilizing								
Studies[2]								

2001. These numbers are not included in the District Totals

Table C: Forest Health Enhancement Activities (Forest Service)

	Plan Goals (hectares)					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority[1]
Site rehab								
Spacing								
Pruning								
Studies[2]								
Others[3]								

Table D: Forest Health Maintenance Activities (Forest Service)

	Plan Goals					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority[1]
Ground Surveys (ha)	5000	2500	2500	2500	2500	290	58	1
Aerial Surveys (hours of flying time)	10	2	2	2	2	14	1400	1
Fall and burn treatment (trees)	440	440	440	440	440	44	100	1
MSMA treatment (trees)	0	0	0	0	0	0		
Pheromone baiting (trees)	100	100	100	100	100	2	20	1
Defoliator spraying (ha)	0	0	0	0	0	0		
Studies[2]	0	0	0	0	0	0		
Other[3]						3		1

Other: training, GPS units and supplies.

Table E: Current Fire and Pest Activities Table (Forest Service)

	Plan Goals (hectares)					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority[1]
Planning/surveys/ prescriptions	1000	1000	1000	1000	1000	35	35	4
Site preparation	5	5	5	5	5	50	10000	4
Planting								
Brushing								
Max density spacing			250	500	500	0	800	4
Studies[2]								

These activities will take place on old fires in the Nass TSA

Site Prep is actually road construction as there is no access to the areas.

Table F: Habitat Supply Activities Forest Service

(Footnote Domestic Range)

	Plan Goals (hectares)					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority[1]
Planning/surveys/ prescriptions	0	0	0	0	0	0		
Site preparation	0	0	0	0	0	0		
Planting	0	0	0	0	0	0		
Brushing	0	0	0	0	0	0		
Spacing	0	0	0	0	0	0		
Pruning	0	0	0	0	0	0		
Studies[2]	0	0	0	0	0	0		
Others[3]	0	0	0	0	0	0		

Table A: Backlog Activities (SCI Tenures)

	Plan Goals (hectares)					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority[1]
Legal Obligations								
Planning/surveys/ prescriptions	4300	4300	3000	3000	3000	170	40	3
Site preparation	0	0	0	0	0	0		
Planting	230	190	90	90	90	200	870	1
Brushing	850	730	570	460	395	650	765	1
Seed Purchase[2]	0	0	0	0	0	0		
Backlog Reforestation[3]								
Planning/surveys/ prescriptions						0		
Site preparation						0		
Site Restoration Road/land. Rehab						0		
Planting						0		
Brushing						0		
Seed Purchase[2]						0		
Impeded areas								
Planning/surveys/ prescriptions						0		
Site preparation						0		
Planting						0		
Brushing						0		
Seed Purchase[2]						0		
Backlog Activities – Management Unit Total								
Planning/surveys/ prescriptions	43000	4300	3000	3000	3000	170	40	3
Site preparation	0	0	0	0	0	0		
Site Restoration Road/land. Rehab	0	0	0	0	0	0		
Planting	230	190	90	90	90	200	870	3
Brushing	850	730	570	460	395	650	765	1
Seed Purchase[2]	0	0	0	0	0	0		
Studies[4]	4	4	4	4	4	90	22500	4
Total						1,110		

Table B: Stand Tending Activities (SCI Tenures)

	Plan Goals (hectares)					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority[1]
Planning/Surveys /prescriptions						0		
Spacing	1150	1150	1150	1150	1150	1610	1400	3
Pruning	0	0	0	0	0	0	0	
Fertilizing						0		
Studies[2]						0		

Table C: Forest Health Enhancement Activities (SCI Tenures)

	Plan Goals (hectares)					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority[1]
Site rehab						0		
Spacing						0		
Pruning						0		
Studies[2]						0		
Others[3]						0		

Table D: Forest Health Maintenance Activities (SCI Tenures)

	Plan Goals					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority[1]
Ground Surveys (ha)						0		
Aerial Surveys (hours of flying time)						0		
Fall and burn treatment (trees)						0		
MSMA treatment (trees)						0		
Pheromone baiting (trees)						0		
Defoliator spraying (ha)						0		
Studies[2]						0		
Other[3]						0		

Table E: Current Fire and Pest Activities Table (SCI Tenures)

	Plan Goals (hectares)					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority[1]
Planning/surveys/ prescriptions						0		
Site preparation						0		
Planting						0		
Brushing						0		
Max density spacing						0		
Studies[2]						0		

Table F: Habitat Supply Activities (SCI Tenures)

(Footnote Domestic Range)

	Plan Goals (hectares)					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority[1]
Planning/surveys/ prescriptions						0		
Site preparation						0		
Planting						0		
Brushing						0		
Spacing						0		
Pruning						0		
Studies[2]						0		
Others[3]						0		

Table A: Backlog Activities (West Fraser Tenures)

	Plan Goals (hectares)					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority[1]
Legal Obligations								
Planning/surveys/ prescriptions	540	400	300	100	1000	19	35	4
Site preparation	0	0	0	0	0	0		
Planting	25	15	0	0	0	22	900	2
Brushing	150	150	100	50	0	135	900	1
Seed Purchase[2]	0	0	0	0	0	0		
Backlog Reforestation[3]								
Planning/surveys/ prescriptions						0		
Site preparation						0		
Site Restoration Road/land. rehab						0		
Planting						0		
Brushing						0		
Seed Purchase[2]						0		
Impeded areas								
Planning/surveys/ prescriptions						0		
Site preparation						0		
Planting						0		
Brushing	75	50	50	20	0	52	700	2
Seed Purchase[2]						0		
Management Unit Total								
Planning/surveys/ prescriptions	540	400	300	100	100	19	35	1
Site preparation	0	0	0	0	0	0		
Site Restoration Road/land. rehab						0		
Planting	25	15	0	0	0	22	900	2
Brushing	225	200	150	50	0	187	833	1
Seed Purchase[1]	0	0	0	0	0	0		
Studies[4]	0	0	0	0	0	0		
Total						228		

Table B: Stand Tending Activities (West Fraser Tenures)

	Plan Goals (hectares)					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority[1]
Planning/Surveys /prescriptions	400	400	400	450	500	40	100	1
Spacing	350	350	400	450	500	420	1200	1
Pruning	0	0	0	0	0	0		
Fertilizing						0		
Studies[2]						10		

Table C: Forest Health Enhancement Activities (West Fraser Tenures)

	Plan Goals (hectares)					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority[1]
Site rehab						0		
Spacing						0		
Pruning						0		
Studies[2]						0		
Others[3]						0		

Table D: Forest Health Maintenance Activities (West Fraser Tenures)

	Plan Goals					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority[1]
Ground Surveys (ha)		500				0	6	3
Aerial Surveys (hours of flying time)						0		
Fall and burn treatment (trees)						0		
MSMA treatment (trees)						0		
Pheromone baiting (trees)						0		
Defoliator spraying (ha)						0		
Studies[2]						0		
Other[3]						0		

Table E: Current Fire and Pest Activities Table (West Fraser Tenures)

	Plan Goals (hectares)					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority[1]
Planning/surveys/ prescriptions						0		
Site preparation						0		
Planting						0		
Brushing						0		
Max density spacing						0		
Studies[2]						0		

Table F: Habitat Supply Activities (West Fraser Tenures)

(Footnote Domestic Range)

	Plan Goals (hectares)					2000/01		
	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	Funding ($000)	Average Unit Cost $	Priority[1]
Planning/surveys/ prescriptions						0		
Site preparation						0		
Planting						0		
Brushing						0		
Spacing						0		
Pruning						0		
Studies[2]						0		
Others[3]						0		

ENGINEERING

1 Road and Bridge Maintenance

(1a) Road Description

Fiscal Year	FSR Name	Project #	Section #	Length (km)	Ranking	Use	Funding Source
2000/2001	Wedeene	9714	all	38	Critical	All	Ministry
	S. Kalum		all	81	High	Commercial	Permit Holder/FS
	N. Kalum		all	430	Medium	Recreation	Permit holder/FS
	Stewart		all	260	Low	None	Permit holder/FS

Fiscal Year	FSR Name	Project #	Section #	Length (km)	Ranking	Use	Funding Source
2001/2002	Wedeene	9714	all	38	Critical	All	Ministry
	S. Kalum		all	81	High	Commercial	Permit Holder/FS
	N. Kalum		all	430	Medium	Recreation	Permit holder/FS
	Stewart		all	260	Low	None	Permit holder/FS

Fiscal Year	FSR Name	Project #	Section #	Length (km)	Ranking	Use	Funding Source
2002/2003	Wedeene	9714	all	38	Critical	All	Ministry
	S. Kalum		all	81	High	Commercial	Permit Holder/FS
	N. Kalum		all	430	Medium	Recreation	Permit holder/FS
	Stewart		all	260	Low	None	Permit holder/FS

Fiscal Year	FSR Name	Project #	Section #	Length (km)	Ranking	Use	Funding Source
2003/2004	Wedeene	9714	all	38	Critical	All	Ministry
	S. Kalum		all	81	High	Commercial	Permit Holder/FS
	N. Kalum		all	430	Medium	Recreation	Permit holder/FS
	Stewart		all	260	Low	None	Permit holder/FS

Fiscal Year	FSR Name	Project #	Section #	Length (km)	Ranking	Use	Funding Source
2004/2005	Wedeene	9714	all	38	Critical	All	Ministry
	S. Kalum		all	81	High	Commercial	Permit Holder/FS
	N. Kalum		all	430	Medium	Recreation	Permit holder/FS
	Stewart		all	260	Low	None	Permit holder/FS

(1b) Road Surface Maintenance Annual Costs 2000 to 2005

Activity	Location	Units	Unit Cost	Total Cost	Comments
Grading	Wedeene	38 km	$ 150	$ 5 700	Twice annually
	S. Kalum	81 km	$ 150	$ 3 000	25% grading
	N. Kalum	430 km	$ 150	$ 6 460	10% grading
	Stewart	260 km	$ 150	0	SBFEP
Brushing	Wedeene	38 km	$ 200	$ 7 600	Annual
	S. Kalum	81 km	$ 200	$ 1 630	10 %
	N. Kalum	430 km	$ 200	$ 4 300	5 %
	Stewart	260 km	$ 200	0	SBFEP
Sign/Fences/gates	Wedeene	38 km	$ 400	$ 7 600	1 sign/2 km
	S. Kalum	81 km	$ 400	$ 1 600	1 sign/20 km
	N. Kalum	430 km	$ 400	$ 8 600	1 sign/20 km
	Stewart	260 km	$ 400	0	SBFEP
Minor (spot)	Wedeene	38 km	$ 4 800	$ 9 120	5%
Resurfacing	S. Kalum	81 km	$ 4 800	$ 3 840	1 %
	N. Kalum	430 km	$ 4 800	$10 320	0.5 %
	Stewart	260 km	$ 4 800	0	SBFEP
Re-vegetation	Wedeene	38 km	$ 4 000	$ 3 040	2 %
	S. Kalum	81 km	$ 4 000	0	0
	N. Kalum	430 km	$ 4 000	0	0
	Stewart	260 km	$ 4 000	0	0
Dust Abatement	Wedeene	38 km			
	S. Kalum	81 km			
	N. Kalum	430 km		$10 000	Bridge sites, Rec. areas
	Stewart	260 km			
Hazard Removal	Wedeene	38 km			
	S. Kalum	81 km			
	N. Kalum	430 km		$ 5 000	
	Stewart	260 km			
RR Crossing	Wedeene	4	$ 2 000	$ 8 000	
	S. Kalum	0			
	N. Kalum	3	$ 2 000	$ 6 000	
	Stewart	0			
Cross drain	Wedeene	38 km	$ 1 200	$21 900	6 cmp/km x 8 %
replacement	S. Kalum	81 km	$ 1 200	$ 5 830	6 cmp/km x 1 %
	N. Kalum	430 km	$ 1 200	$30 960	6 cmp/km x 1 %
	Stewart	260 km	$ 1 200	0	SBFEP
Other	Wedeene	38 km	$ 10	$ 380	
	S. Kalum	81 km	$ 10	$ 810	
	N. Kalum	430 km	$ 10	$ 4 300	
	Stewart	260 km	$ 10	0	

(1c) Road Structural Maintenance

Activity	Location	Units (km)	Unit Cost	Total Cost	Comments
2000/2001	Wedeene	38 km	$75 000	$28.500	≈ 10 m per km
Re-location	S. Kalum	81 km	$75 000		none required
	N. Kalum	430 km	$75 000	$32 250	≈ 1 m per km
	Stewart	260 km	$75 000		
Subgrade	Wedeene	38 km	$20 000	$15 200	≈ 20 m per km
Reconstruction	S. Kalum	81 km	$20 000		none required
	N. Kalum	430 km	$20 000	$17 200	≈ 2 m per km
	Stewart	260 km	$20 000		
Major Re-surfacing	Wedeene	38 km	$15 500	$11780	≈ 20 m per km
	S. Kalum	81 km	$15 500		none required
	N. Kalum	430 km	$15 500	$13 330	≈ 2 m per km
	Stewart	260 km	$15 500		

Activity	Location	Units (km)	Unit Cost	Total Cost	Comments
2001/2002	Wedeene	38 km	$75 000	$22 800	≈ 8 m per km
Re-location	S. Kalum	81 km	$75 000		none required
	N. Kalum	430 km	$75 000	$32 250	≈ 1 m per km
	Stewart	260 km	$75 000		
Subgrade	Wedeene	38 km	$20 000	$11 400	≈ 15 m per km
Reconstruction	S. Kalum	81 km	$20 000		none required
	N. Kalum	430 km	$20 000	$17 200	≈ 2 m per km
	Stewart	260 km	$20 000		
Major Re-surfacing	Wedeene	38 km	$15 500	$ 8 840	≈ 15 m per km
	S. Kalum	81 km	$15 500		none required
	N. Kalum	430 km	$15 500	$13 330	≈ 2 m per km
	Stewart	260 km	$15 500		

Activity	Location	Units (km)	Unit Cost	Total Cost	Comments
2002/2003	Wedeene	38 km	$75 000	$17 100	≈ 6 m per km
Re-location	S. Kalum	81 km	$75 000		none required
	N. Kalum	430 km	$75 000	$32 250	≈ 1 m per km
	Stewart	260 km	$75 000		
Subgrade	Wedeene	38 km	$20 000	$ 7 600	≈ 10 m per km
Reconstruction	S. Kalum	81 km	$20 000		none required
	N. Kalum	430 km	$20 000	$17 200	≈ 2 m per km
	Stewart	260 km	$20 000		
Major Re-surfacing	Wedeene	38 km	$15 500	$ 5 890	≈ 10 m per km
	S. Kalum	81 km	$15 500		none required
	N. Kalum	430 km	$15 500	$13 330	≈ 2 m per km
	Stewart	260 km	$15 500		

Activity	Location	Units (km)	Unit Cost	Total Cost	Comments
2003/2004	Wedeene	38 km	$75 000	$11 400	≈ 4 m per km
Re-location	S. Kalum	81 km	$75 000		none required
	N. Kalum	430 km	$75 000	$32 250	≈ 1 m per km
	Stewart	260 km	$75 000		
Subgrade	Wedeene	38 km	$20 000	$ 6 080	≈ 8 m per km
Reconstruction	S. Kalum	81 km	$20 000		none required
	N. Kalum	430 km	$20 000	$17 200	≈ 2 m per km
	Stewart	260 km	$20 000		
Major Re-surfacing	Wedeene	38 km	$15 500	$ 4 710	≈ 8 m per km
	S. Kalum	81 km	$15 500		none required
	N. Kalum	430 km	$15 500	$13 330	≈ 2 m per km
	Stewart	260 km	$15 500		

(1c) Road Structural Maintenance, continued

Activity	Location	Units (km)	Unit Cost	Total Cost	Comments
2004/2005					
Re-location	Wedeene	38 km	$75 000	$ 5 700	≈ 2 m per km
	S. Kalum	81 km	$75 000		none required
	N. Kalum	430 km	$75 000	$32 250	≈ 1 m per km
	Stewart	260 km	$75 000		
Subgrade	Wedeene	38 km	$20 000	$ 2 280	≈ 3 m per km
Reconstruction	S. Kalum	81 km	$20 000		none required
	N. Kalum	430 km	$20 000	$17 200	≈ 2 m per km
	Stewart	260 km	$20 000		
Major Re-surfacing	Wedeene	38 km	$15 500	$ 1 770	≈ 3 m per km
	S. Kalum	81 km	$15 500		none required
	N. Kalum	430 km	$15 500	$13 330	≈ 2 m per km
	Stewart	260 km	$15 500		

(1d) Road Deactivation

This activity is covered under Table A Backlog Reforestation

(1e) Bridge Surface Maintenance Annual Costs 2000 to 2005

Activity	Location	Cost	Comments
Re-decking	Kalum	$300 000	60 wood deck bridges, Redeck average 6 years Av. cost $30 000
Debris Removal	Kalum	$ 10 000	As & when required
Minor Repairs	Kalum	$ 10 000	Sign repairs, curbs and sweepers

(1f) Bridge Structural Maintenance Annual Costs 2000 to 2005

Activity	Location	Units	Unit Cost	Total Cost	Comments
Professional Inspections	Kalum	42	$ 500	$21 000	76 perm, every three years 32 temp, every two years
Super structure repair/replacement		4	$50 000	$200 000	32 temp, 8 years average life
Sub-structure repair/replacement		2	$60 000	$120 000	
Major Culvert replacement		2	$35 000	$ 70 000	
Engineered structure major repair/replacement		4	$50 000	$200 000	

(1g) Bridge Deactivation Annual Costs 2000 to 2005

Activity	Location	# of Units (structures))	Unit Cost	Total Cost	Comments
Level of Deactivation				0	
Level of Access Required				0	
Planning				0	
Prescriptions				0	
Works				0	
Monitoring				0	

2 R/W Acquisitions

Fiscal Year	Location	Cost	Ranking	Comment
2000/2001	Kalum			
Wedeene IR #1 Hirsch Whitebottom		$10 000 $50 000 0	High High Medium Low	Survey cost only Access to West Kalum TFL 41
			Medium	
			Low	

Fiscal Year	Location	Cost	Ranking	Comment
2001/2002	Kalum			
Wedeene IR #1 Whitebottom		$10 000 $50 000	High High	Transfer costs Access to West Kalum

Fiscal Year	Location	Cost	Ranking	Comment
2002/2003	Kalum			
IR #1 Whitebottom		$50 000	High Low	Access to West Kalum

Fiscal Year	Location	Cost	Ranking	Comment
2003/2004	Kalum			
IR #1 Whitebottom		$50 000	High	Access to West Kalum

Fiscal Year	Location	Cost	Ranking	Comment
2004/2005	Kalum			
IR #1 Whitebottom		$50 000	High	Access to West Kalum

3 Road and Bridge Program Management Annual Costs 2000-2005

Activity	Estimated Costs	Comments
Advertising	$ 2 500	Bridge closures, contract advertising, etc.
Flying (inspections)	$ 7 500	10 hours annually
RR Crossing Fees	$10 000	
Emergency Repairs	$10 000	
Road Inventory (FRMS)	$ 7 500	
Administration	$ 5 000	
Other (specify)	$ 0	

RECREATION PROGRAM (Recreation and Recreation Sites and Trails)

OBJECTIVES:

Management Objectives from the Kalum Recreation Management Strategy, May 1988
(by Recreation Character Zone)

Meziadin-Nass Sub-zone

A. To apply high standards for scenic quality along the Highway 37A travel corridor and at important wilderness recreation sites.
B. To focus forest recreation management on facilitating and improving wilderness recreation opportunities for canoeing, hiking, hunting, fishing and recreational river use, for public use.

Central Kalum Sub-zone

A. To focus forest recreation development on expanding and improving opportunities for vehicle access camping and trail use at significant recreation features.
B. To apply objectives for scenic quality in keeping with LRMP and Ministry-approved recommendations.
C. To maintain roads that will continue to provide access to important recreation destinations.

Kitimat Kildala Sub-Zone

A. To apply standards for scenic quality in keeping with LRMP and Ministry-approved recommendations.
B. To focus forest recreation development on improving and expanding opportunities for vehicle access camping and trail use at significant recreation features.
C. To maintain roads that will continue to provide access to important recreation destinations.
D. To recognize significant a marine recreation features and develop opportunities for use and enjoyment.

Douglas-Gardiner Sub-zone

A. To emphasize and manage for high quality visual land and marine landscapes consistent with the Natural and Semi-Primitive ROS class.
B. To manage significant marine recreation areas/features, providing opportunities that promote natural and cultural heritage appreciation.

STRATEGIES

- Continue to provide regular maintenance for the high use recreation site and trails (Kalum and Nass TSA)
- Make facility improvements to recreation sites and trails where necessary for maintenance of infrastructure and safety reasons.
- Continue to manage recreation access, feature and visual in cooperation with timber harvesting operations and planning.

Recreation Site and Trail Management Activities

Obligations for Public Safety and Environmental Protection at Recreation Sites and Trails

		Plan Goals: # sites (S) and trails(T)					**2000/2001**			**Funding Source**
	Units	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Funding $ (000)	Average Unit Cost $	Priority H M L	Ministry Licensee FRBC
Inspections	# of Sites	1020	1020	1020	1020	1020	0	0	H	Ministry
Inspections	Km of trails	51	51	51	51	51	0	0	H	Ministry
Maintenance Service Units Sites	# of Sites	1020	1020	1020	1020	1020	$50,000	$50	H	Ministry
Maintenance Service Units Sites	Km of Trails	51	51	51	51	51	$20,000	$400	H	Ministry
Site Maintenance Supplies							$20,000		H	Ministry
Trail Maintenance Supplies							$3,000		H	Ministry
Totals							$93,000			

Rehabilitation of Recreation Sites / Trails

		Plan Goals: # sites (S) and trails(T)					2000/2001			Funding Source
	Units	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Funding $ (000)	Average Unit Cost $	Priority H M L	Ministry Licensee FRBC
Site Plans	#	0	0	0	0	18	0			
Trail Plans	#	1	0	0	0	0	0		H	Ministry
Site Restoration	# of sites	0	0	0	0	0	0			
Trail Restoration	Km of Trail	1	0	0	0	0	$8,000			
Structure Restoration/ Replacement	# of sites	1	0	0	0	0	$5,000		M	Ministry
Structure Restoration/ Replacement	Km of trail	0	0	0	0	0	0			
Totals							$13,000			

Development of Recreation Sites / Trails

		Plan Goals: # sites (S) and trails(T)					2000/2001			Funding Source
	Units	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Funding $ (000)	Average Unit Cost $	Priority H M L	Ministry Licensee FRBC
Site Plans	#	0	0	0	0	0	0			
Trail Plans	#	2	0	0	0	0	0			Ministry
Site Construction	# of sites	0	0	0	0	0	0			
Trail Construction	Km of trail	2	0	0	0	0	$3,000	$1,500	M	Ministry
Site Structures	#	0	0	0	0	0	0			
Trail Structures	#	0	0	0	0	0	0			
Site Studies	#	0	0	0	0	0	0			
Trail Studies	#	0	0	0	0	0	0			
Totals							$3,000			

NOTES:

[1] Priority rating: Rate high , Medium, Low

ENHANCING ENVIRONMENTAL VALUES (Watershed Restoration)

Regional Categories

Category I - *Watersheds that have known impacts from past pre-Code forestry that will potentially benefit from restoration activities*

These watersheds are known to have experienced forestry-related habitat impairment or water quality degradation in at least a portion of the watershed area (at least 15% of the watershed area), or are believed to have a forestry related threat to fish habitat or water quality, but there are still significant areas of good quality habitat. It is believed that restoration activity can be rapidly focused on improving conditions or preventing damage before it occurs (as an example, in the case of roads with high risk of failure). Category I watersheds can include those portions of a watershed that contain important identified target species and are upstream of agricultural or urbanized areas, or supply water to a community intake that is upstream of other land uses. For example, the upper Chilliwack River contains important habitat for 3 identified species. The watershed area upstream of the agricultural/residential area can be designated as a Category I watershed. Where the important habitat areas are affected by different land uses the watershed is not Category I.

Category II - *Watersheds with significant impacts from other land use (or private land development) that will potentially benefit from restoration activities*

Restoration of these watersheds through activity only in the forest land will potentially provide low benefit because of significant impacts from other land uses or impacts from forest development on private lands. Restoration will require a coordinated approach to address all of the land use impacts. Category II watersheds must be coordinated with other funding sources, such as Fisheries Renewal or HRSEP, in order to significantly affect fish recovery or water quality improvement.

Category III - *Watersheds with minimal or no forestry-related impairment of fish habitat or water quality*
These watersheds are believed to have experienced minimal or no habitat or water quality impairment related to forestry activity. In these cases, restoration activity may not be required or may not be cost effective in relation to a small, incremental improvement in fish habitat or water quality.

Category IV - *Watersheds known to be impacted to such an extent that restoration effort is unlikely to be successful*
These watersheds are believed to have experienced such extensive habitat or hillslope damage that expenditures will be so high and restoration time so slow that it is not cost effective to restore.

Category V - *Watersheds with insufficient data to make a determination*
Watersheds falling into this category are temporarily put on the back burner and are candidate areas for overview assessments. They do not become candidate watersheds for restoration activity until more is known about their status. However, neither are they rejected as candidate watersheds.

Category VI - *Watersheds with significant restoration investment*

These watersheds are high priority (similar to categories I and II) which have received considerable restoration investment through Forest Renewal British Columbia and or other agencies, e.g., Fisheries and oceans. Follow-up monitoring may be the most effective strategy for these watersheds.

For prioritizing watershed restoration, the focus should be on Category I Key Watersheds rated as Very High or High for fish and water-supply values or on Category II watersheds rated as VH or H and where there is a coordinated restoration plan with other funding agencies.

Priority Watershed

Watershed Unit Descriptor	Key watershed for region (Y/N)		Regional Priority for Fish (VH,H,M)		Regional category (I-VI)		MYA # (for Ws units with active projects)		Status of Work (Stage I –IV, None)		Recommended as Target Watershed for 2005 (Y/N)
CRAVEN		N	(m)		3			NTC			
KONIGUS		N	(m)		3			NTC			
NASS HEADWATERS		N	(m)		3			NTC			
OWL	Y?		(m)		5			NTC			
ROCHESTER	Y?		(m)		5			NTC			
MUSKABOO		N	(m)		3			NTC			
KOT		N	(m)		3			NTC			
PANORAMA		N	(m)		3			NTC			
SLOWMALDO		N	(h)		3			NTC			
TONY		N	(h)		3			NTC			
DAMOCHAX LAKE		N	(h)	h	3			NTC			
VILE		N	(m)		3			NTC			
FUHR		N	(h)		3			NTC			
KOTSINTA		N	(m)		3			NTC			
TAYLOR		N	(h)		3			NTC			
TAFT		N	(m)		5			NTC			
DELTAIC	Y		(h)		5			NTC			
OWEEGEE	Y		(h)		1	6		NTC	2,3		
SNOWBANK		N	(h)		5			NTC			
TREATY		N	(h)		1			NTC			
WILDFIRE	Y		(h)		5			NTC			
RITCHIE	Y		(m)		1	6		NTC	2,3		
BOWSER LAKE	Y		(h)		5			NTC			
BOWSER UPPER		N	(m)		3			NTC			
BOWSER LOWER	Y		(m)		1			NTC	2	Y	
IRVING	Y		(h)		1	6		NTC	2,3		
CLEFT	Y		(m)		5			NTC			
TINTINA	Y		(m)		1	6		NTC	2,3		
SANYAM		N	(h)		3			NTC			
LIPSCONESIT		N	(h)		3			NTC			
SANSKISOOT		N	(m)		3			NTC			
SALLYSOUT		N	(m)		3			NTC			
KWINAGEESE	Y		(m)		1			NTC			
MADELY	Y		(m)		1			NTC			
MEZIADIN LAKE	Y		(h)	h	1			NTC			
BEAR		N	(m)		3			NTC			
CAMBRIA ICEFIELD		N	Ice Fields		3			NTC			
WILLOUGHBY		N	(m)		3			NTC			
WHITE	Y		(m)		1			NTC			
PAW		N ?	(m)		5			NTC			
KINSKUCH	Y		(h)		1			NTC	2,3	Y	

BROWN BEAR	Y		(h)		1			NTC				
NASS WEST		N	(m)	h	5			NTC				
HUB		N	(m)		3			NTC				
TCHITIN	Y		(vh)		1			NTC	2,3		Y	
KWINATAHL	Y		(??)		1			NTC	2,3		Y	
KITEEN LOWER	Y		(m)		1			NTC	2,3		Y	
SEASKINNISH	Y		(h)		1			NTC	2,3			Y
KWINAMUCK	Y		(m)		1			NTC	2,3		Y	
NASS RIVER KALUM	Y		(vh)		1			NTC	2,3		Y	
TSEAX LOWER	Y		(h)	h	1			NTC	2,3			Y
KITTEN UPPER	Y		(m)		1			NTC				
GREENVILLE	Y		(m)		1			NTC				
ANSEDEGAN	Y		(h)		1			NTC	2,3			Y
TSEAX UPPER	Y		(h)		1			NTC	2,3			Y
CEDAR	Y		(vh)		1			KKBC	2			Y
KSEDIN	Y		(h)		1			NTC	2,3			Y
GINLULAK	Y		(h)		1			NTC	2			Y
ISHKHEENICKH	Y		(vh)		1			NTC	2,3			Y
BEAVER	Y		(vh)		1			KKBC				Y
MAYO	Y		(h)		1			KKBC	2,3,4			
CLEAR	Y		(vh)	h	1			KKBC	2		Y	
FIDDLER	Y		(h)		3			KKBC				
MAROON	Y		(h)		1			KKBC	2		Y	
NELSON	Y		(h)		1			KKBC	2			Y
KALUM LOWER	Y		(vh)	h	1			KKBC	2,3			Y
HARDSCRABBLE	Y		(h)		1			KKBC	2,3,4		Y	
LEGATE	Y		(h)	m	1			KKBC	2,3			
CHIMDEMASH	Y		(h)	m	1			KKBC	2,3			
KLEANZA	Y		(h)	m	1			KKBC	2,3			Y
ZYMACORD	Y		(vh)	h	1			KKBC	2,3			Y
EXSTEW	Y		(h)		1			KKBC				
EXCHAMSIKS		N?	(h)	h	3			KKBC				
SHAMES	Y		(h)		1			KKBC	2,3		Y	
SKEENA RIVER KALUM	Y		(vh)	h	1			KKBC	2,3			
LAKELSE RIVER	Y		(vh)	h	1			KKBC	2,3			Y
HOT SPRINGS	Y		(h)	vh	1			KKBC	2,3		Y	
WILLIAMS	Y		(h)	h	1			KKBC	2,3			
COPPER LOWER	Y		(vh)	h	1			SCI	2,3			
TREASURE	Y		(vh)		1			SCI				
LIMONITE	Y		(h)		1			SCI	2,3			
KITNAYAKWA	Y		(vh)		1			SCI	2			
CLORE	Y		(vh)		1			SCI	2,3		Y	
CHIST	Y		(vh)		1	6		Haisla	2,3			
HUNTER	Y		(h)		1			Haisla				
DAVIES	Y		(h)		1			Haisla				
KITIMAT UPPER	Y		(h)		5			Haisla				
HIRSCH	Y		(h)		1			Haisla	2,3			Y
MCKAY	Y		(h)		1			Haisla				
HUMPHRYS	Y		(vh)		1			Haisla	2,3		Y	
CECIL	Y		(vh)		1			Haisla	2,3			Y
WEDEENE	Y		(vh)		1			Haisla	2,3		Y	

LITTLE WEEDEENE	Y		(vh)		1			Haisla	2,3		Y
DASQUE	Y		(h)		1			KKBC	2		
GITNADOIX	Y	N	(h)		3			Haisla			
KASIKS		N	(h)		3			Haisla			
GILTTOYEES		N	(h)		3			Haisla			
JESSE	Y		(h)		3			Haisla			
BISH	Y		(h)		5			Haisla			
WATHL	Y		(h)	vh	1			Haisla			
DALA	Y		(h)		1			Haisla			
KEMANO RIVER	Y		(vh)	h	1			Haisla			
KILDALA	Y		(h)		1			Haisla			
FALLS	Y		(h)		1			Haisla			
WEEWANIE	Y		(h)		1			Haisla			
HAWKESBURY ISLAND WEST		N	(m)		5			Haisla			
FOCH		N	(h)		5			Haisla			
HAWKESBURY ISLAND EAST		N	(m)		5			Haisla			
OWYACUMISH		N	(m)		3			Haisla			
BARRIE NORTH		N	(m)		3			Haisla			
HORETZKY		N	(m)		5			Haisla			
SEEKWYAKIN	Y?		(m)		5			Haisla			
WHIDBEY EAST		N	(m)		3			Haisla			
BARRIE SOUTH		N	(m)		3			Haisla			
KOWESAS		N	(m)		3			Haisla			
ICY		N	(m)		3			Haisla			
TSAYTIS		N	(m)		3			Haisla			
EAR		N	(m)		3			Haisla			
TENAIKO		N	(m)		3			Haisla			
KITLOPE LAKE		N	(m)		3			Haisla			
KALITAN		N	(m)		3			Haisla			
TEZWA RIVER		N	(m)		3			Haisla			
KAPELLA		N	(m)		3			Haisla			
KITLOPE UPPER		N	(m)		3			Haisla			

For Watershed Units with Existing/Proposed Projects

Sub-basin Name	Overview Assessment		Upslope Prescriptions		Riparian Prescriptions		Monitoring & Evaluation		Funding Source (FRBC/vote licencee)
	Year	Est. Total $	Year	Est. Total $	Year	Est. Total $	Year	Est. Total $	
BROWN BEAR	00/01	85,000	00/01	25,000	00/01	100,000	00/01	15,000	
BOWSER LOWER					00/01	55,000	00/01	15,000	Forest Renewal British Columbia
KINSKUCH			00/01	12,500	00/01	15,000			
TCHITIN									
KWINATAHL									
KITEEN LOWER									
SEASKINNISH			00/01	7,500	00/01	220,000			
KWINAMUCK					00/01	40,000	00/01	15,000	
NASS RIVER KALUM			00/01	12,500					
TSEAX LOWER									
ANSEDEGAN					00/01	45,000			
TSEAX UPPER					00/01	170,000			
CEDAR									
KSEDIN					00/01	35,000			
GINLULAK					00/01	125,000			
ISHKHEENICKH					00/01	15,000	00/01	15,000	
MAYO									
CLEAR									
MAROON					00/01	60,000			
NELSON									
KALUM LOWER					00/01	90,000	00/01	10,000	
HARDSCRABBLE					00/01	45,000			
LEGATE									
CHIMDEMASH									
KLEANZA									
ZYMACORD									
SHAMES									
SKEENA RIVER KALUM					00/01	15,000	00/01	10,000	
LAKELSE RIVER							00/01	9,000	
HOT SPRINGS					00/01	40,000			
WILLIAMS					00/01	30,000			
KITNAYAKWA			00/01	10,000	00/01	80,000	00/01	15,000	
CLORE			00/01	10,000	00/01	120,000	00/01	15,000	
CHIST									
HIRSCH	00/01	20,000			00/01	20,000	00/01 01->05	1,000	4,000
HUMPHRYS					00/01 01-->05		20,000	80,000	
CECIL					00/01 01-->05		120,000	480,000	
WEDEENE							00/01 01-->05	5,000	8,000
LITTLE WEEDEENE					00/01	20,000	00/01 01-->05	1,000	4,000

DASQUE										

ENHANCING FOREST MANAGEMENT KNOWLEDGE (Inventory)

DRAFT ONLY refer to Regional Inventory for final projects

1. Current Projects

Activity #	Activity	Proponent	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005
10082	Terrain Stability Mapping	SCI	$45,450	$45,450	$45,450	$45,450	$45,450
10083	Fish & Fish Habitat Inventories	SCI	$181,800	$181,800	$181,800	$181,800	$181,800
708975	Terrestrial Ecosystem Mapping	SCI	$136,360	$136,360	$136,360	$136,360	$136,360
708976	Wildlife & Wildlife Habitat Mapping	SCI	$90,900	$90,900	$90,900	$90,900	$90,900
708977	Trim II	SCI	$90,900	$90,900	$90,900	$90,900	$90,900
10368	Terrain Stability Mapping	West Fraser	$350,000	$200,000	$200,000	$200,000	$200,000
101870	Fish & Fish Habitat Inventories	West Fraser	$70,600	$70,600	$70,600	$70,600	$70,600

2. Knowledge gaps from TSR II:
   Review operability criteria for helicopter logging
   Review industry operations in environmentally sensitive areas (ES1) to test TSR netdowns.
   Complete the Vegetation Resource Inventory
   Compete the site index/site productivity review, for all major species
   Confirm actual regeneration delays